AMENDMENTS IN THE SPECIFICATION:

Page 30, Line 4 (Paragraph beginning thereat)

It should be noted that the write beam emitted from a ~~semiconductor disk~~ semiconductor laser diode, for example, preferably has one emission period length of 15 nanoseconds to 15 picoseconds because the maximum sensitivity is achieved in that case.

Page 33, Line 12 (Paragraph beginning thereat)

Subsequently, Sample Disks Nos. **2b** and **2c** are made. As the polydiacetylene solution is being cured with the UV ray in an increasing amount of time, the resultant polydiacetylene layer goes through the red phase, blue phase and then colorless phase. Thus, after the polydiacetylene solution has been applied as described above, the solution is cured with the UV ray in less than one hour, thereby obtaining a sample disk **2b** made of red-phase polydiacetylene. In the same way, the solution is cured with the UV ray in more than one hour, thereby obtaining a sample disk ~~**3c**~~ **2c** made of colorless-phase polydiacetylene.

Page 34, Line 10 (Paragraph beginning thereat)

If a laser beam with a wavelength of 800 nm, which has been emitted from a pulsed semiconductor laser diode with a peak output of 600 mW and an output pulse width of 5 nanoseconds, is focused on the sample disk **2a** through an objective lens with an NA of 0.85, then good signal pits can be created in the sample disk ~~**1**~~ **2a**. Consequently, it can be seen that information can be written on the sample disk **2a** using a conventional semiconductor laser diode since the sample disk **2a** has high sensitivity.

Page 42, Line 17 (Paragraph beginning thereat)

The read/write drive shown in FIG. **6** includes a semiconductor laser diode **11** that emits a linearly polarized light beam, a collimator lens **10** that collimates the output light beam of the semiconductor laser diode ~~14~~ 11 into a parallel light beam, a polarization beam splitter **7** that splits the light beam, which has come from the collimator lens **10**, into two light rays, a focus detecting lens **8**, a signal detecting photodetector **9**, a $\lambda/4$ (quarter wave) plate **4**, a refracting mirror **6** and an objective lens **1**. One of the two light rays produced by the splitting by the polarization beam splitter **7** is transmitted through the focus detecting lens and then incident onto the signal detecting photodetector **9**. The other light ray is transmitted through the polarization beam splitter **7** as it is, passed through the $\lambda/4$ plate **4**, has its optical path changed by the refracting mirror **6**, and then is focused through the objective lens **1** onto the storage layer **57** of the optical information storage medium **100**. If the light beam emitted from the semiconductor laser diode **11** is a write beam (with a wavelength of 800 nm, for example), then thermal deformation is produced at the focal point **3** in the storage layer **57** to create pits there. On the other hand, if the light beam emitted from the semiconductor laser diode **11** is a read beam (with a wavelength of 400 nm, for example), then the read beam is reflected by the storage layer **57**. The reflected beam is passed through the objective lens **1** and the refracting mirror **6** and then returned to the polarization beam splitter **7**. Thereafter, the reflected light has its optical path changed by the polarization beam splitter **7**, is converged by the focus detecting lens **8** onto the signal detecting photodetector **9** and then is detected by the signal detecting photodetector **9**.

Page 55, Line 11 (Paragraph beginning thereat)

When the thermoplastic resin layer **52** and the heat insulating layer **58** are arranged appropriately on the surfaces of each storage layer **57** as shown in FIG. **2** or **3**, pits can be created more easily under the heat generated in the storage layer **57** and yet the diffusion of the heat generated in the storage layer **57** can be controlled. That is to say, the properties of the storage layer **57** can be corrected appropriately. As a result, the material of the storage layer **57** can be selected from a broader variety. For example, to increase the recording sensitivity, a material with a large third-order nonlinear constant (of at least 0.5×10^{-12} esu preferably) may be freely selected as the material of the storage layer **57**. Examples of preferred materials for the storage layer **57** include a tellurium oxide (e.g., tellurium dioxide) with a third-order nonlinear constant of 1.3×10^{-12} esu and a zinc oxide with a third-order nonlinear constant of 0.8×10^{-12} esu. Any of these oxide compounds may include an appropriate amount of additives such as lithium (Li) and sodium (Na). Specifically, a compound obtained by adding 25 lithium to 75 TeO_2 (i.e., a compound consisting of 75 mol% of tellurium dioxide and 25 mol% of ~~tellurium dioxide~~ lithium, which will be sometimes referred to herein as "lithium-added tellurium oxide") may be used, for example. The third-order nonlinear constant of this compound of 1.4×10^{-12} esu is about twice as large as that of a compound obtained by adding 15 mol% of sodium oxide to TeO_2 (which will be sometimes referred to herein as "Na-added tellurium dioxide").